

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2415 - L2 Version 6
Chandra X-Ray Center

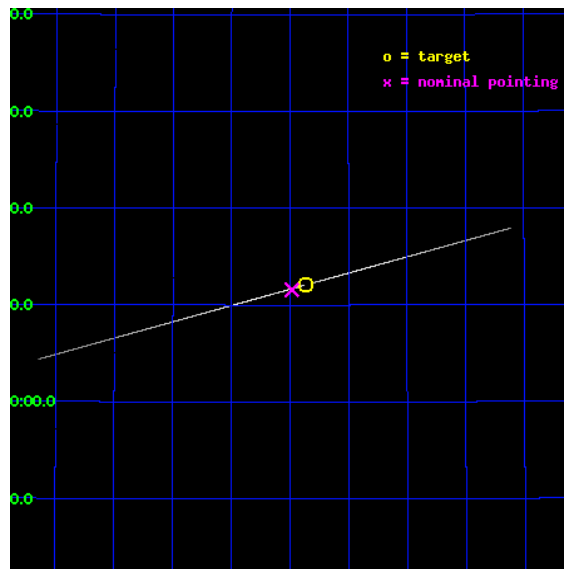
L2 Processing Date : Oct 12 2012

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1 Front

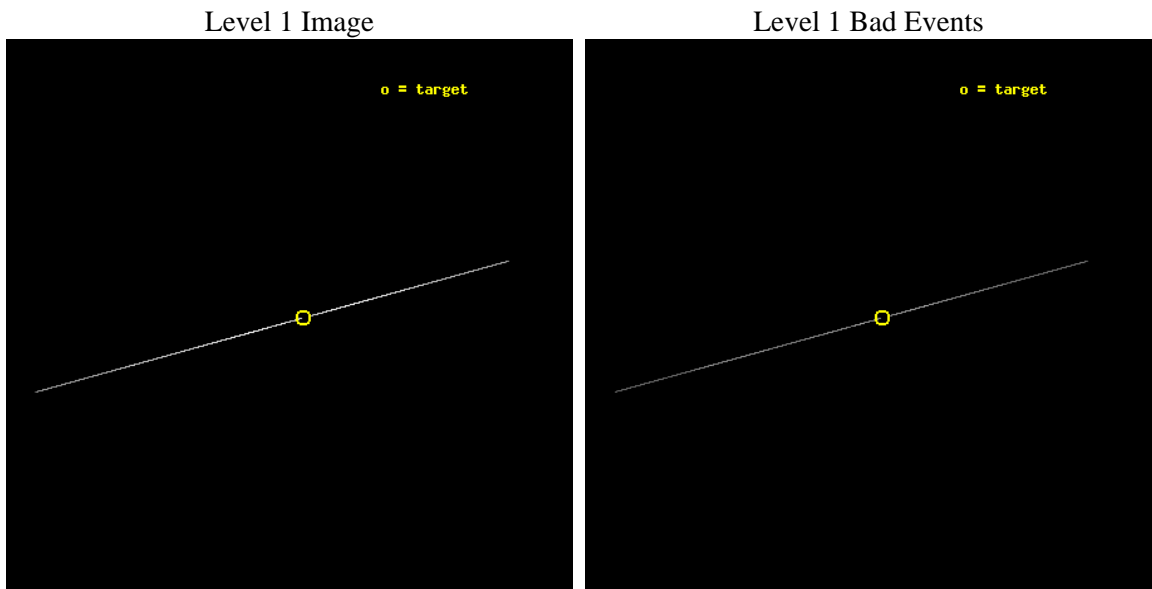
seq_num	400161	Sequence number
obs_id	2415	Observation id
title	CHANDRA OBSERVATIONS OF CYGNUS X-1 IN A RARE, SUSTAINED HIGH/SOFT STATE	Proposal title
observer	Dr Jon Miller	Principal investigator
object	CYGNUS X-1	Source name
ra_targ	299.590417	Observer's specified target RA [deg]
dec_targ	35.201611	Observer's specified target Dec [deg]
ra_nom	299.62090557033	Nominal RA [deg]
dec_nom	35.192901082404	Nominal Dec [deg]
roll_nom	344.64134310907	Nominal Roll [deg]
revision	6	Processing version of data
ontime	30142.582960472	Sum of GTIs [s]
livetime	30024.838495782	Livetime [s]
ontime4	30144.041617855	Sum of GTIs [s]
ontime5	30144.041786551	Sum of GTIs [s]
ontime6	30144.041786492	Sum of GTIs [s]
ontime7	30142.582960472	Sum of GTIs [s]
ontime8	30144.041786388	Sum of GTIs [s]
ontime9	30145.5	Sum of GTIs [s]
l2events	7502709	Number of level 2 events



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	30142.582960472	Sum of GTIs [s]
caldbver	4.5.1.1	 	ontime4	30144.041617855	Sum of GTIs [s]
date	2012-09-06T10:09:01	Date and time of file creation	ontime5	30144.041786551	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	30144.041786492	Sum of GTIs [s]
			ontime7	30142.582960472	Sum of GTIs [s]
			ontime8	30144.041786388	Sum of GTIs [s]
			ontime9	30145.5	Sum of GTIs [s]
			l1events	8205956	Number of level 1 events

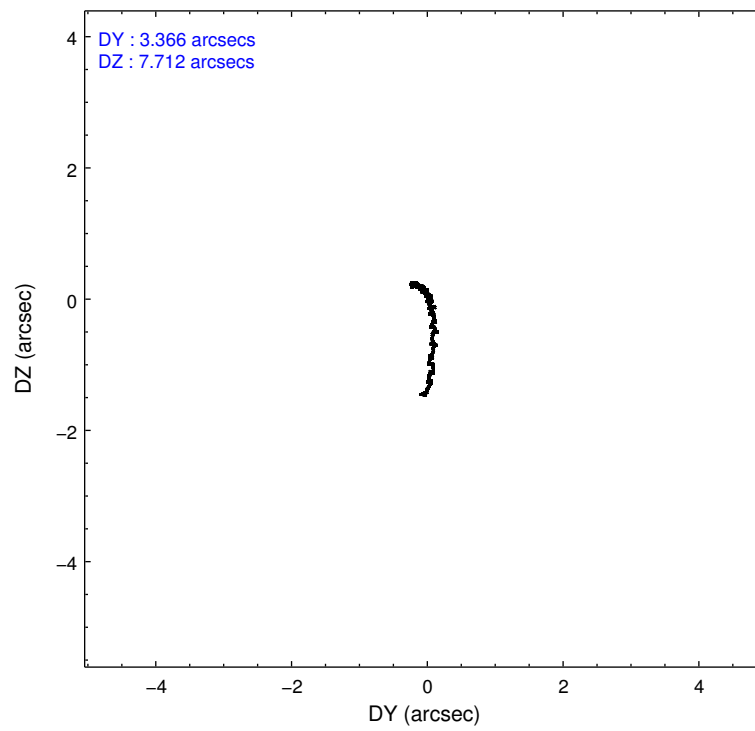
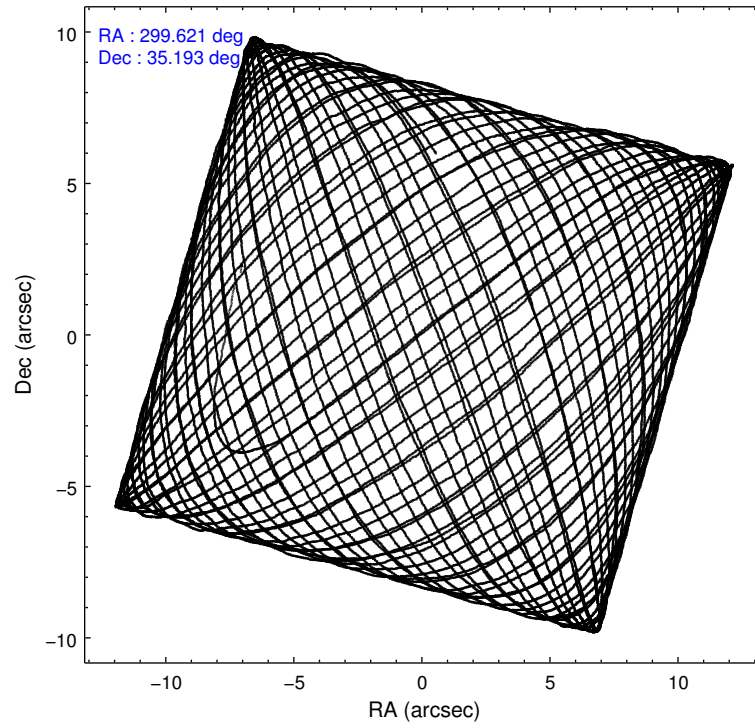
2.1.3 Events

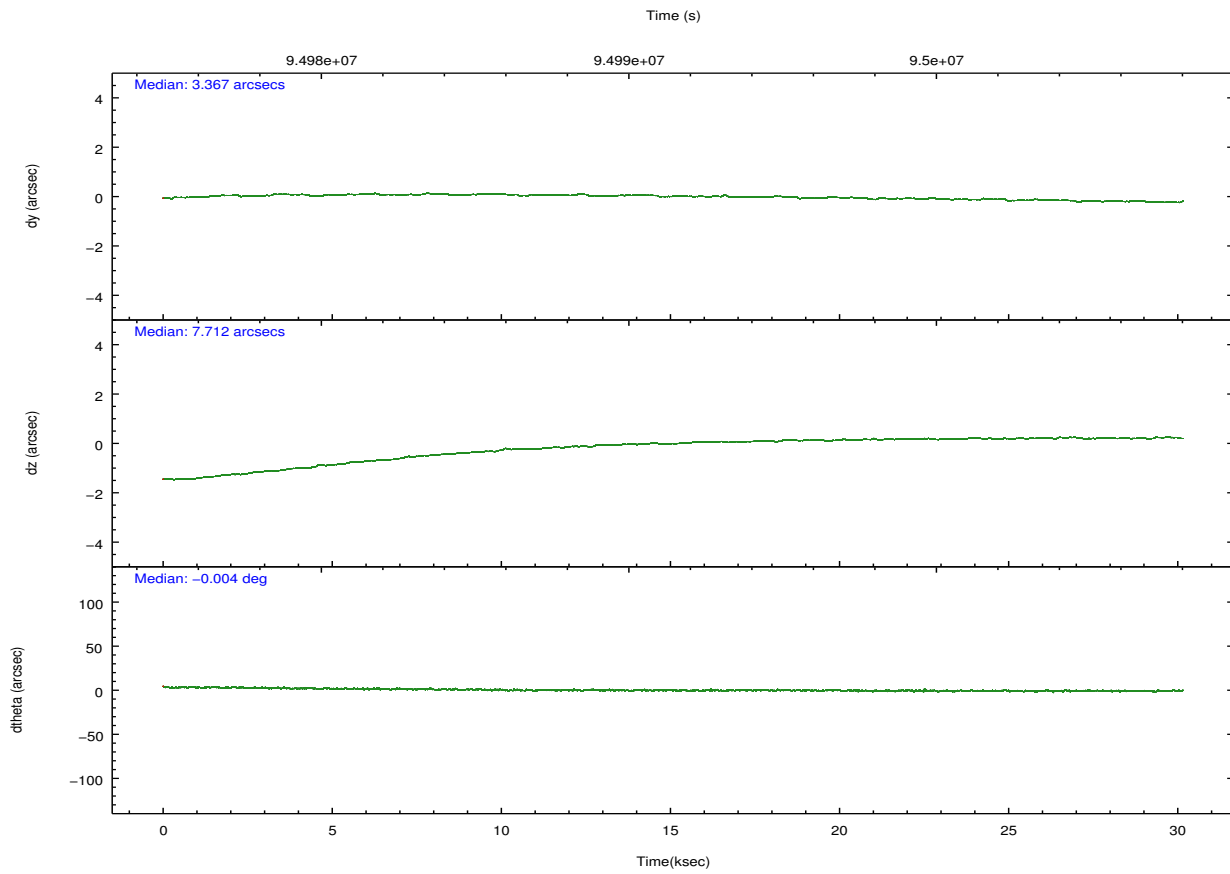
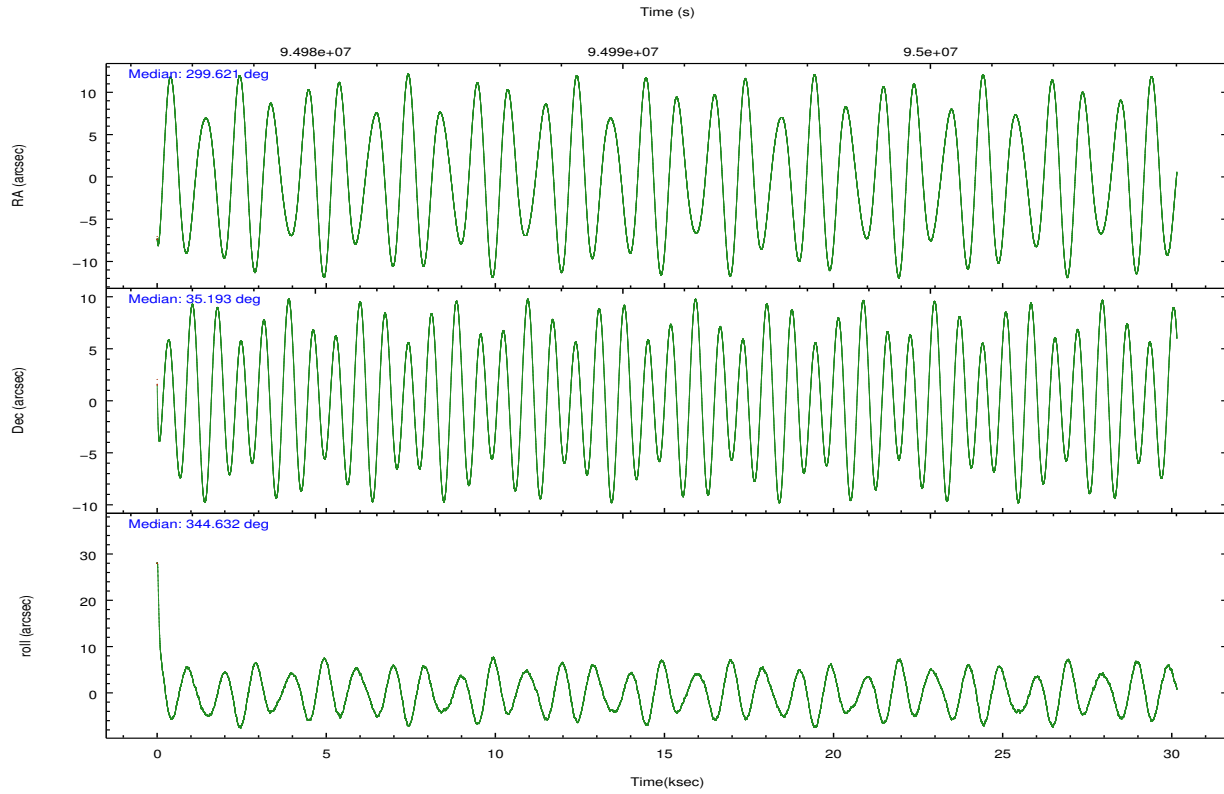
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	208838	754910	2654442	2047246	2140590	399930	grade 0 events	5110	102966	23415	248096	41824	12138
rejected events	7951	31440	26748	51040	26531	10503		2%	13%	0%	12%	1%	3%
rejected %	3%	4%	1%	2%	1%	2%	grade 1 events	103	224	159	732	237	122
								0%	0%	0%	0%	0%	0%
							grade 2 events	171947	363633	2410998	717926	1922977	342279
								82%	48%	90%	35%	89%	85%
							grade 3 events	5102	22128	5252	132050	10111	4551
								2%	2%	0%	6%	0%	1%
							grade 4 events	4951	21741	5292	130937	9856	4931
								2%	2%	0%	6%	0%	1%
							grade 5 events	6417	22756	15866	39426	16764	8138
								3%	3%	0%	1%	0%	2%
							grade 6 events	15208	221462	193460	778079	138821	27771
								7%	29%	7%	38%	6%	6%
							grade 7 events	0	0	0	0	0	0
								0%	0%	0%	0%	0%	0%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	CC33_GRADED	CC33_GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	299.588630	299.6209055703254	Subarray requested	NONE	NONE
[deg] Pointing Dec	35.185753	35.1929010824036	Alternating exposures requested	N	N
[deg] Pointing Roll	344.503312	344.6413431090651	[s] Primary exposure time	0.000000	0
[s] Window start time (MET)	93225664.184000	93225664.184000			
[s] Window stop time (MET)	95904064.184000	95904064.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-194.132523	-194.1227414875429			
[mm] SIM translation stage offset	4	3.990218904535112			
[s] Observation start time (MET)	94976512.184000	94975427.03704201			
Observation start date	2001-01-04T06:20:48	2001-01-04T06:03:47			
[s] Observation end time (MET)	95006512.184000	95007560.275774			
Observation end date	2001-01-04T14:40:48	2001-01-04T14:59:20			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect



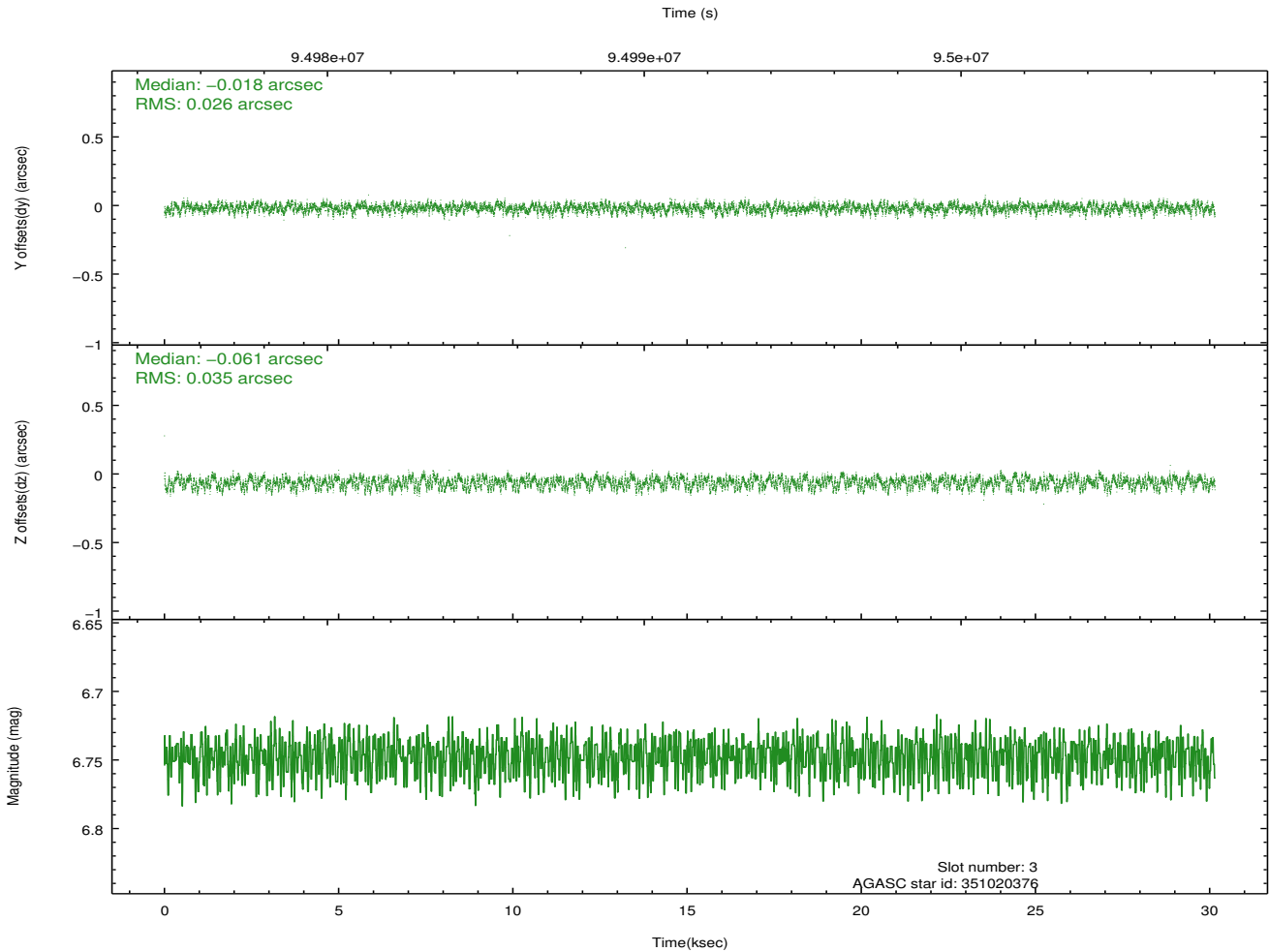
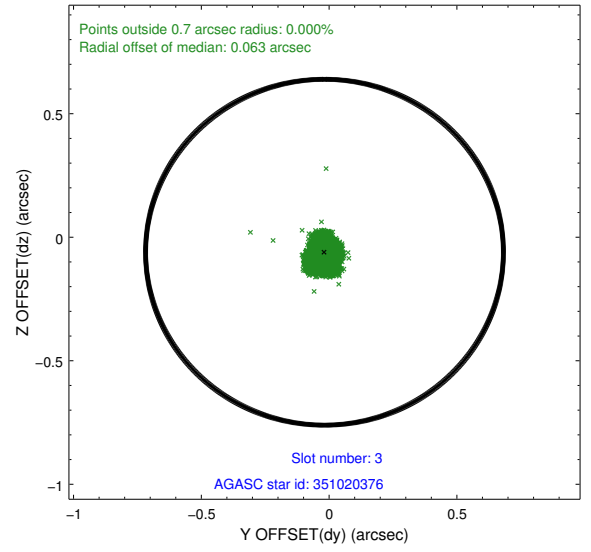
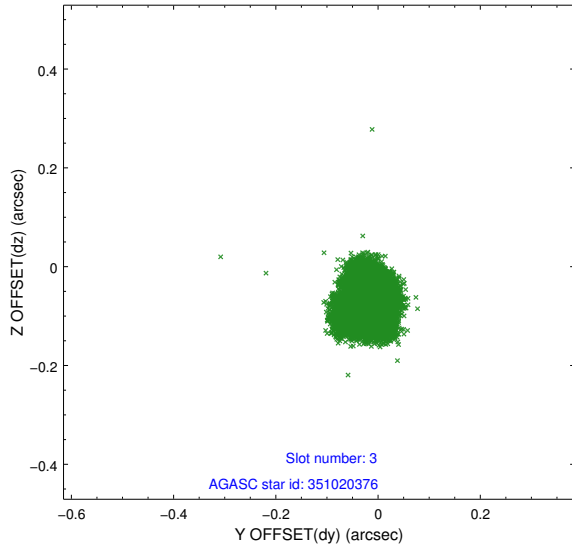


Slot Statistics

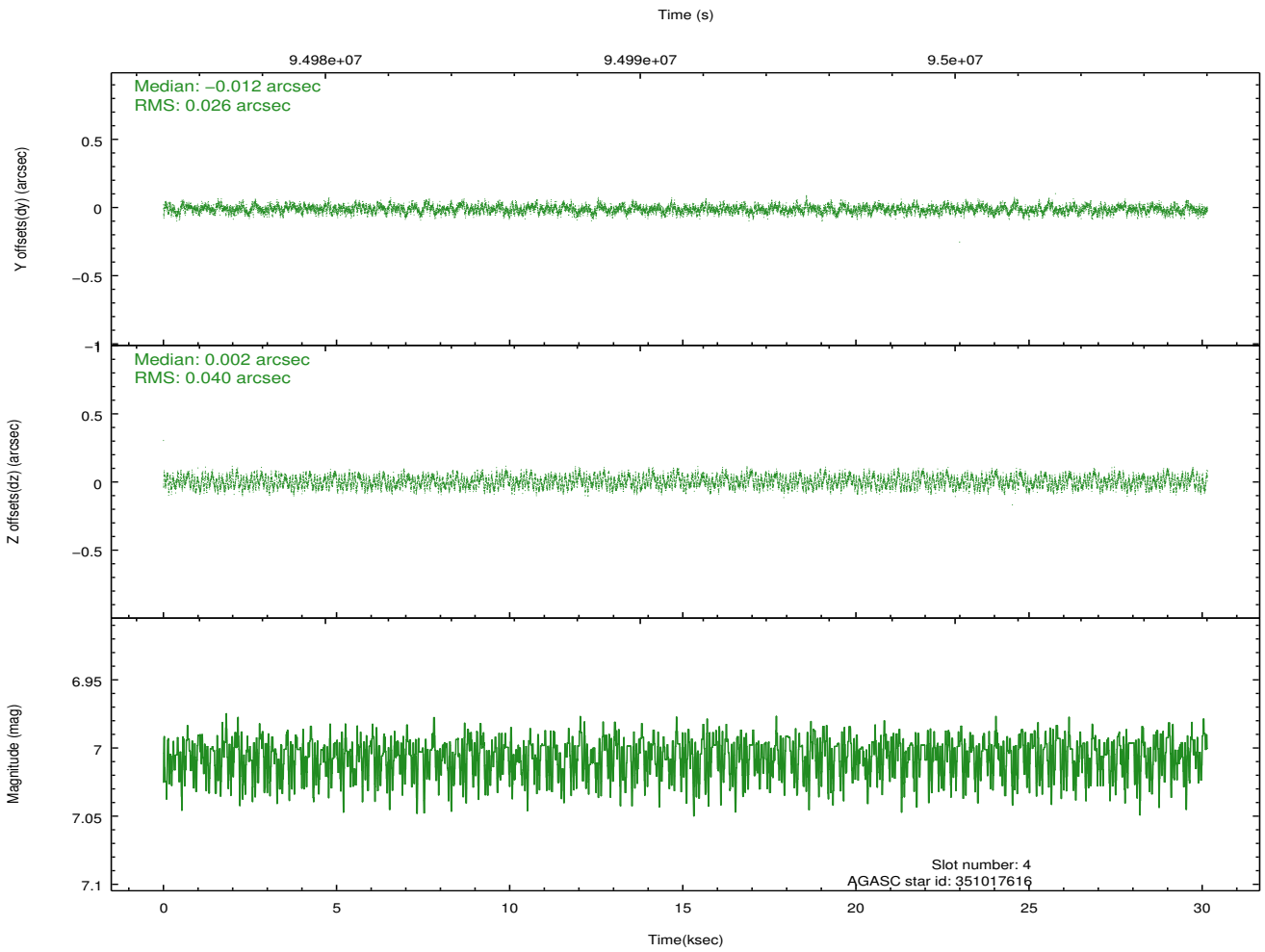
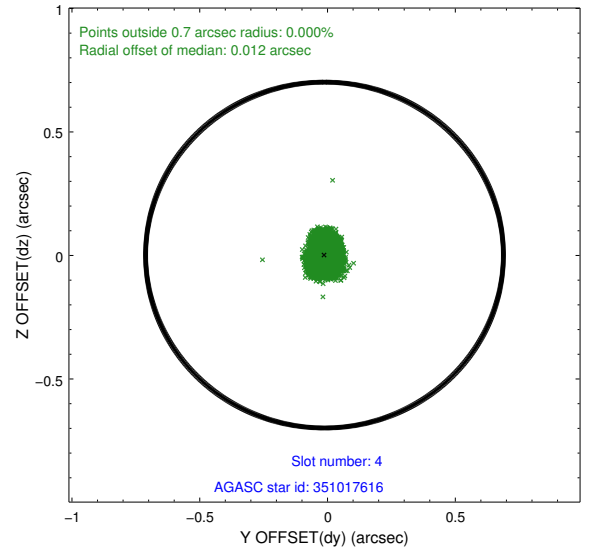
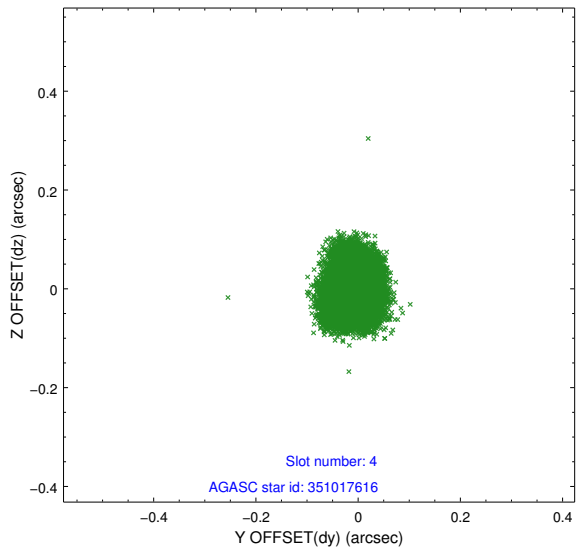
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	7353	0.018	0.016	0.010	0.037	0.000000	0.000000	-756.24	-1646.54
1	FID	ACIS-S-4	7.21	7353	0.009	-0.030	0.007	0.012	0.000000	0.000000	2157.00	261.82
2	FID	ACIS-S-6	7.34	7352	-0.055	0.020	0.012	0.031	0.000000	0.000000	405.77	899.35
3	GUIDE	351020376	6.75	14702	-0.018	-0.061	0.046	0.074	299.982490	35.296494	1008.77	695.61
4	GUIDE	351017616	7.00	14708	-0.012	0.002	0.052	0.078	300.079295	35.358356	1221.99	987.29
5	GUIDE	351407808	7.58	14707	0.029	-0.010	0.065	0.107	299.102647	35.790086	-1949.17	1720.41
6	GUIDE	351018080	8.34	14700	0.009	0.023	0.066	0.100	299.327312	34.581247	-164.14	-2303.04
7	GUIDE	351023656	8.18	14638	-0.003	0.049	0.045	0.073	299.727900	34.661972	902.26	-1706.63

2.4 Star Slots

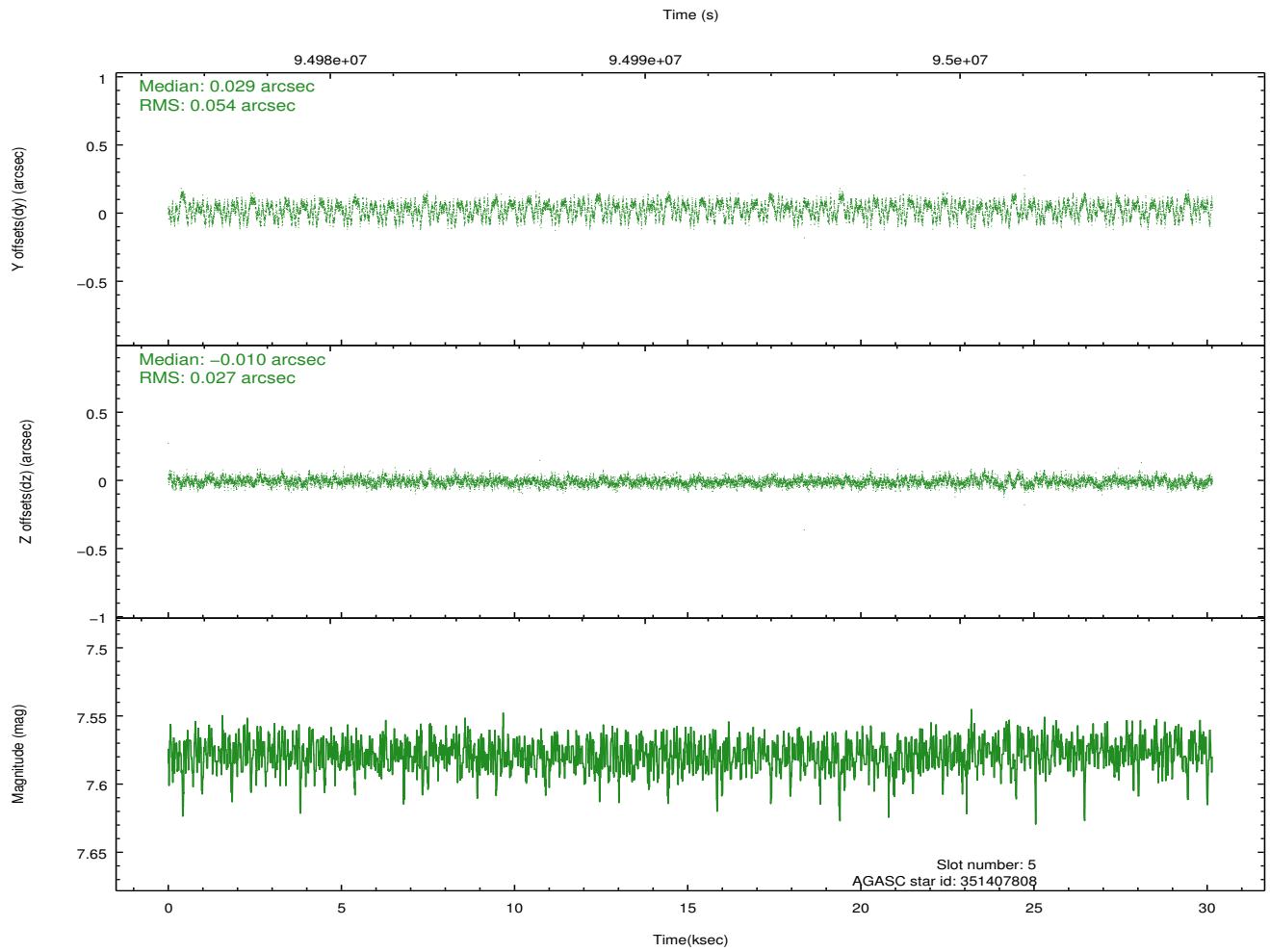
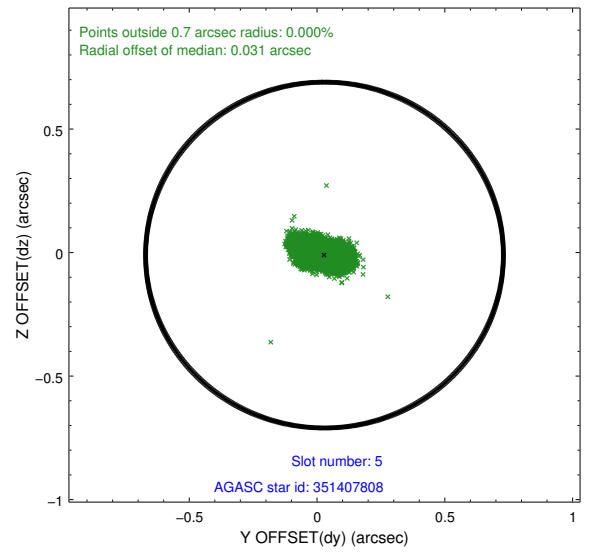
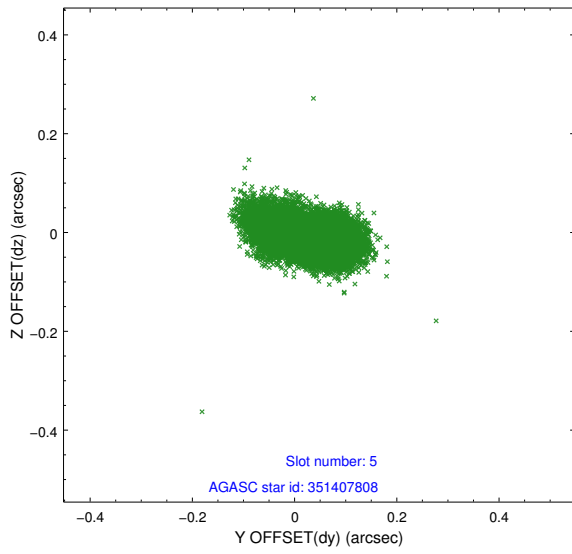
2.4.1 Slot 3



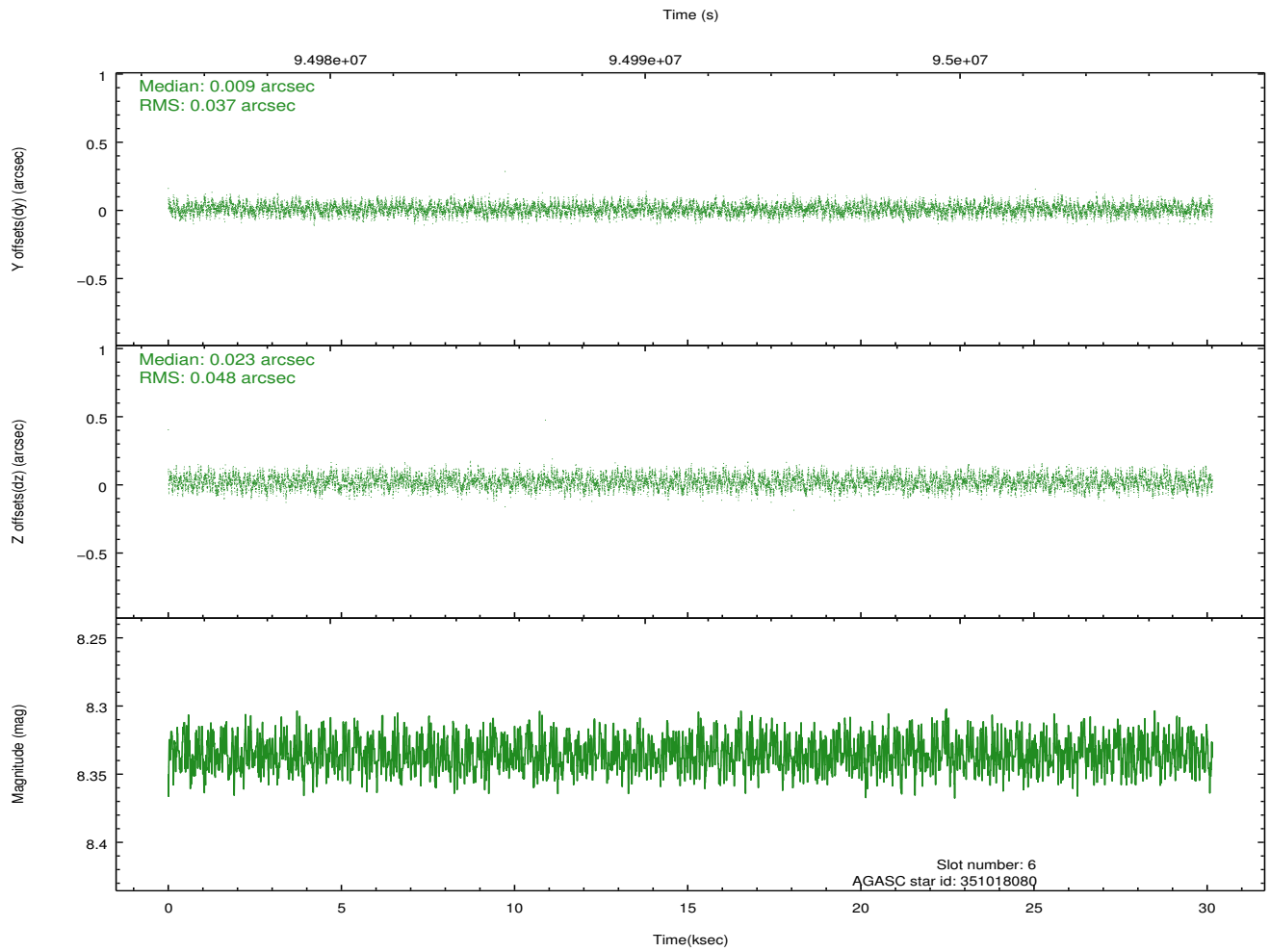
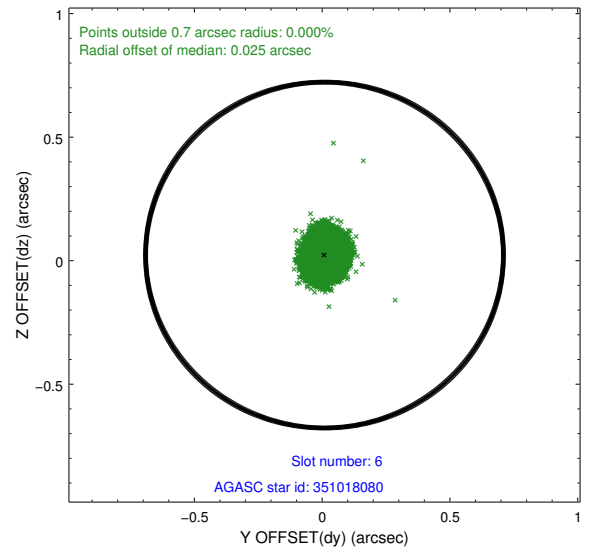
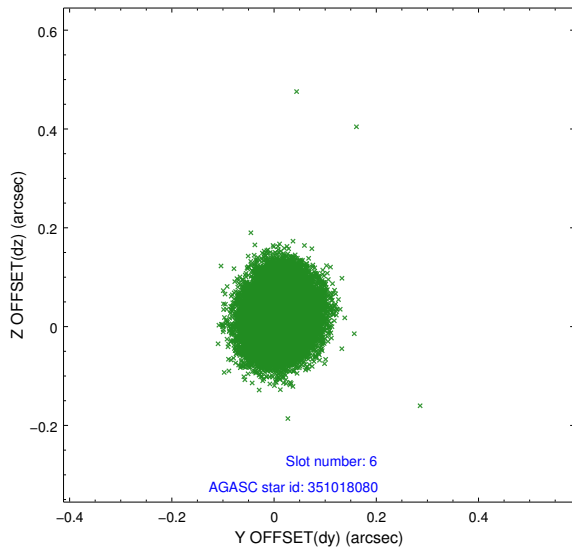
2.4.2 Slot 4



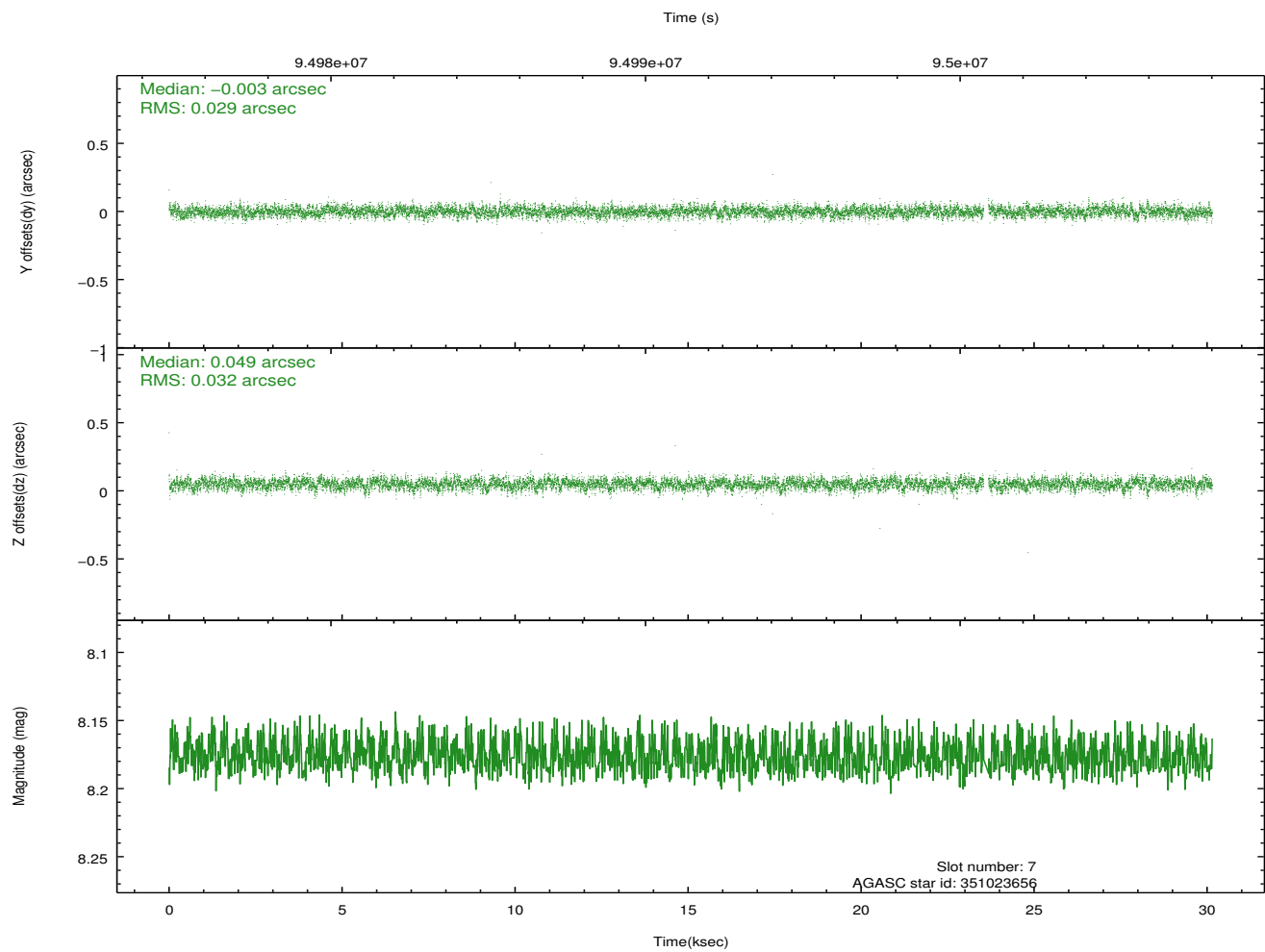
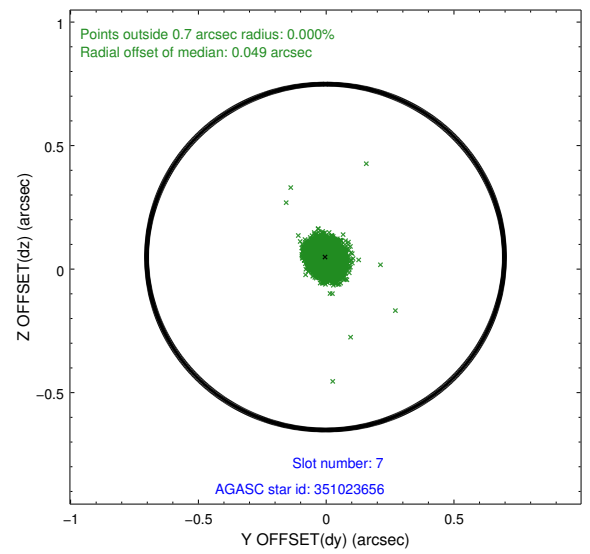
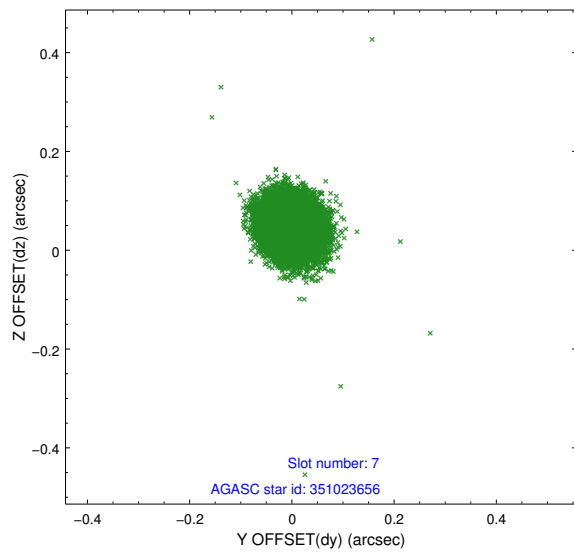
2.4.3 Slot 5



2.4.4 Slot 6

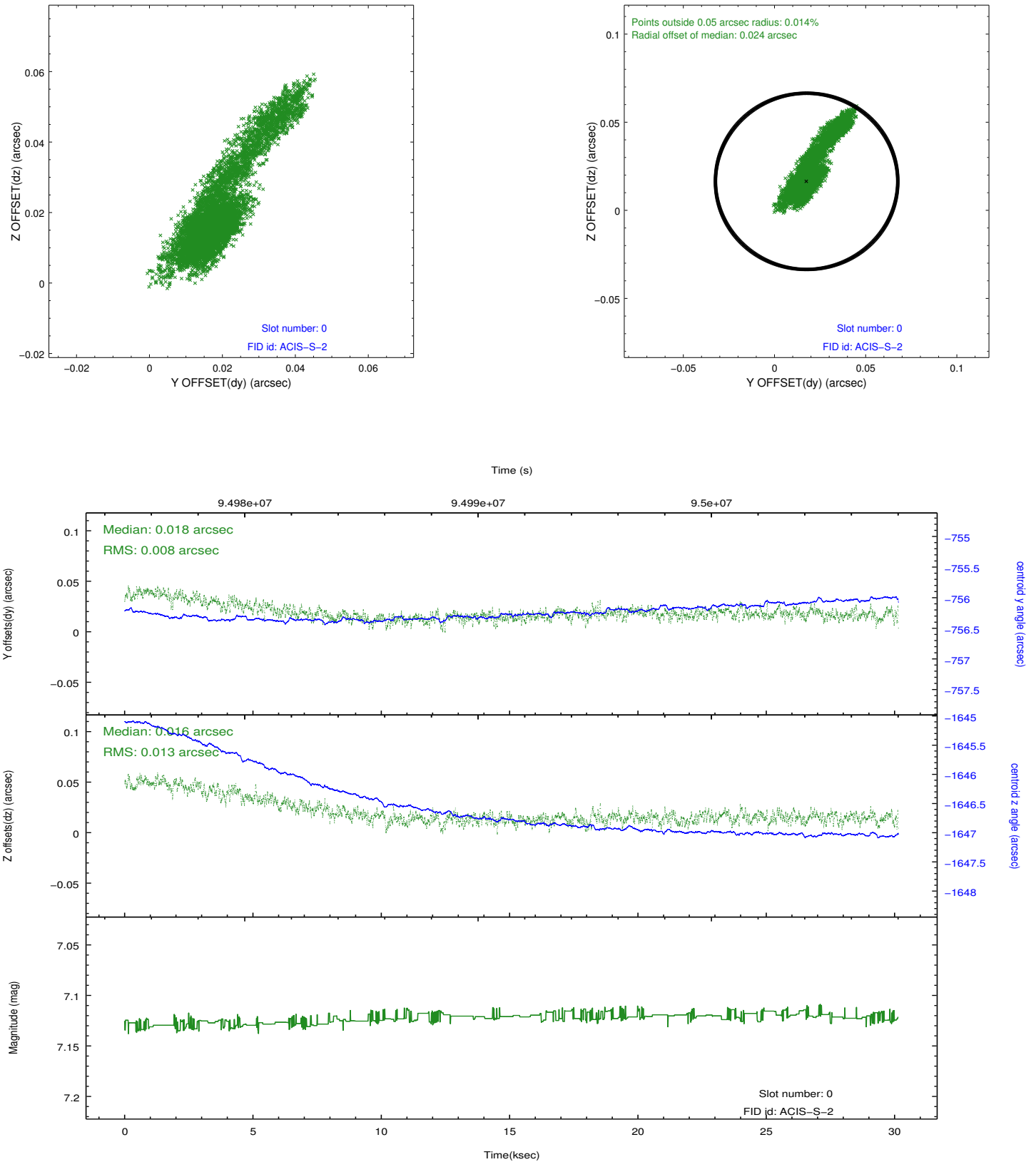


2.4.5 Slot 7

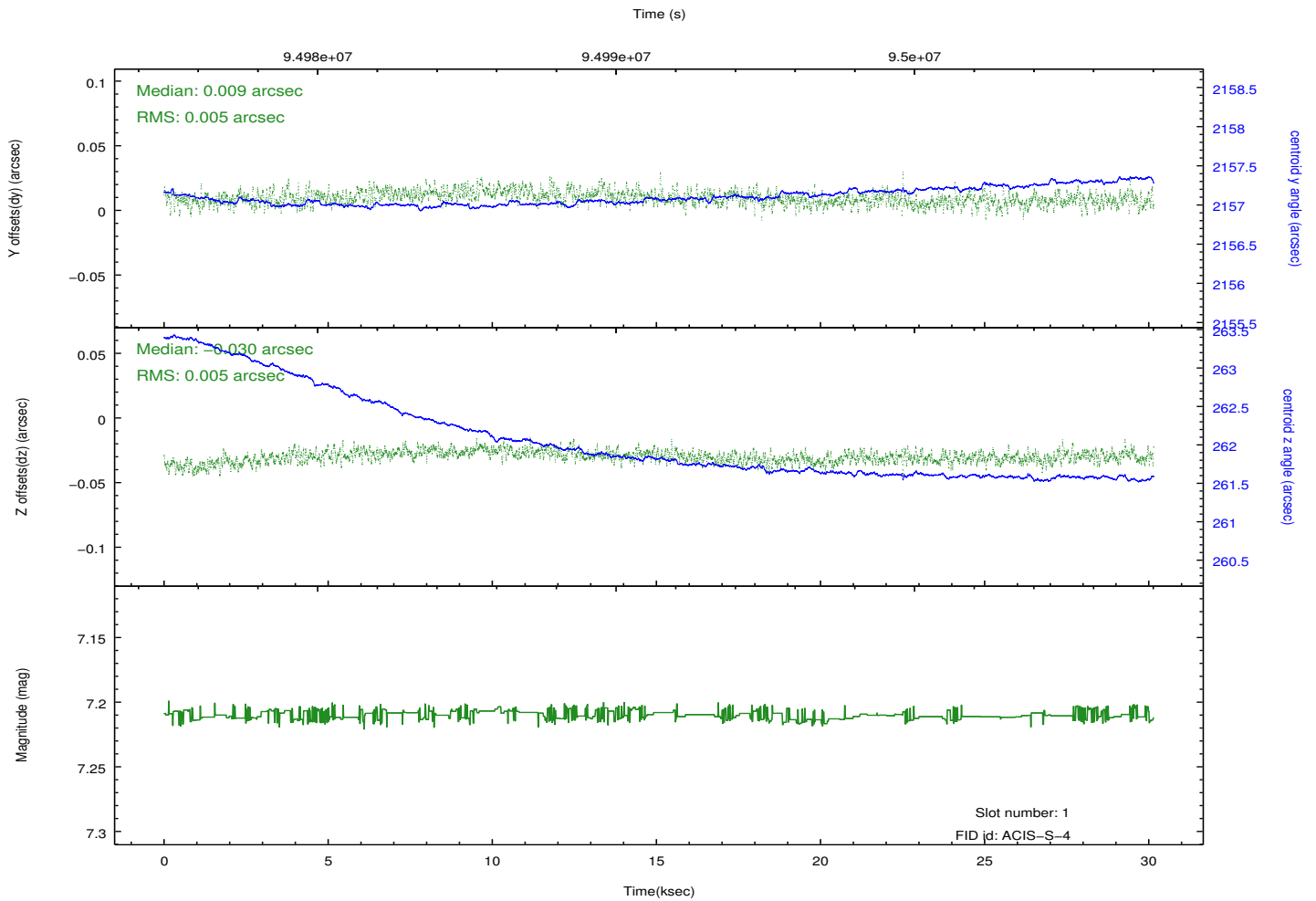
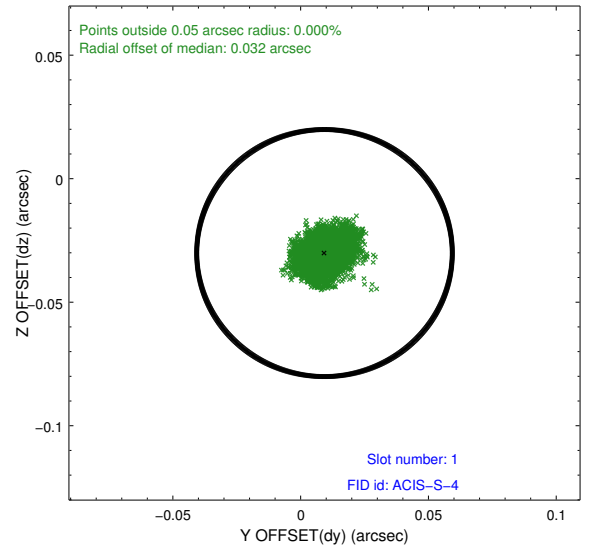
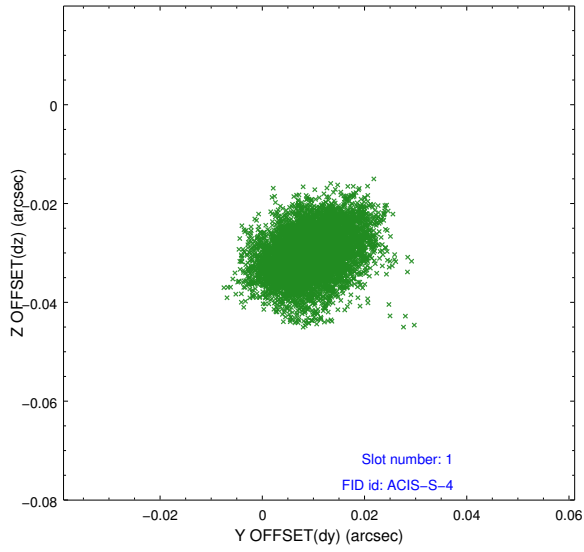


2.5 FID Slots

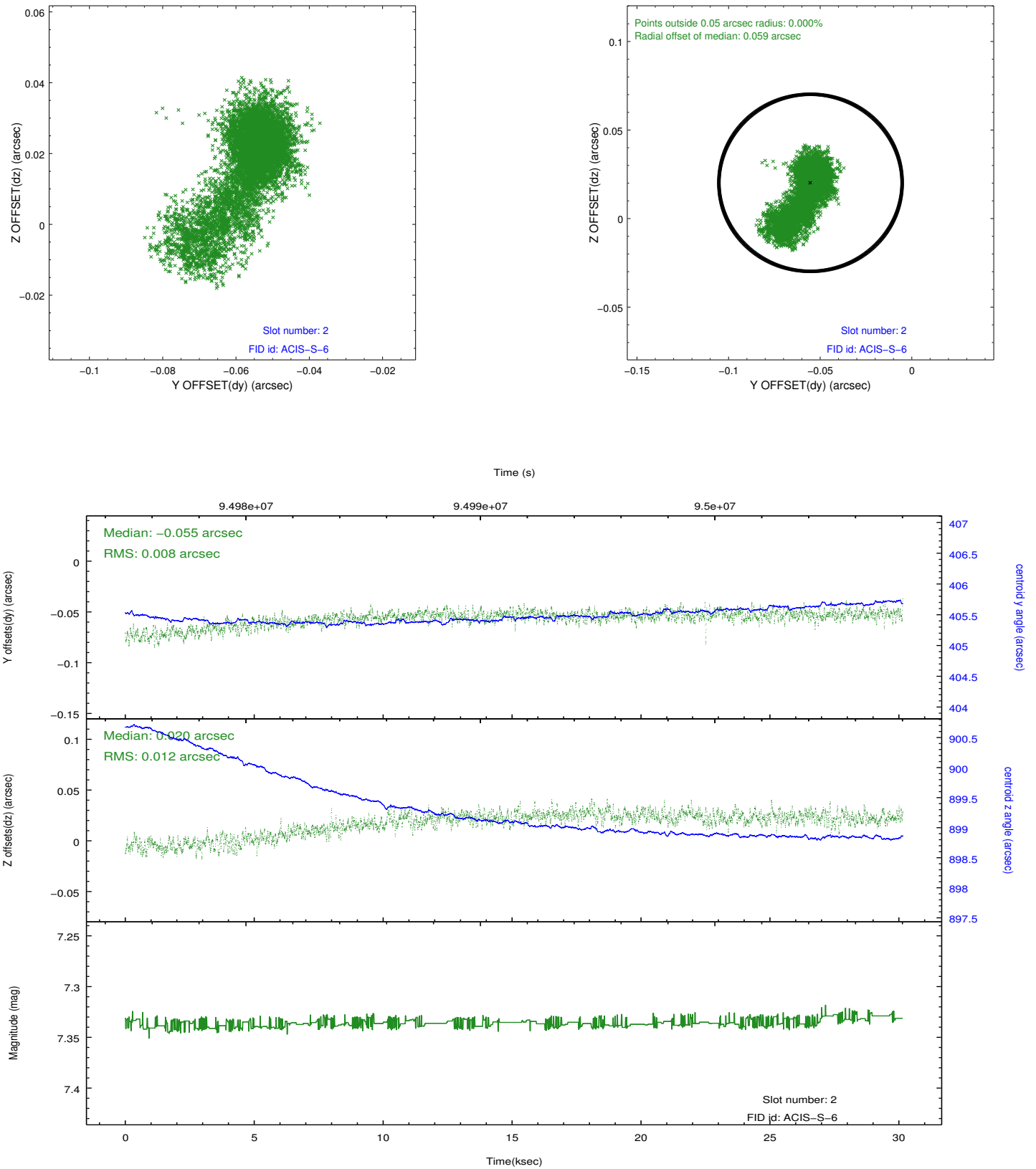
2.5.1 Slot 0



2.5.2 Slot 1

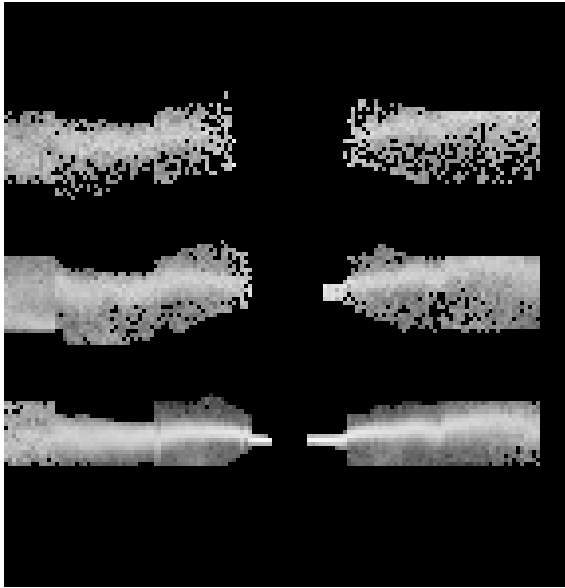


2.5.3 Slot 2

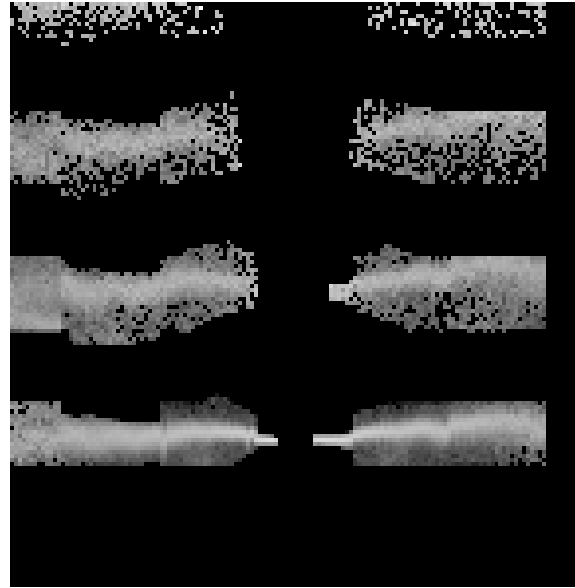


3 Gratings

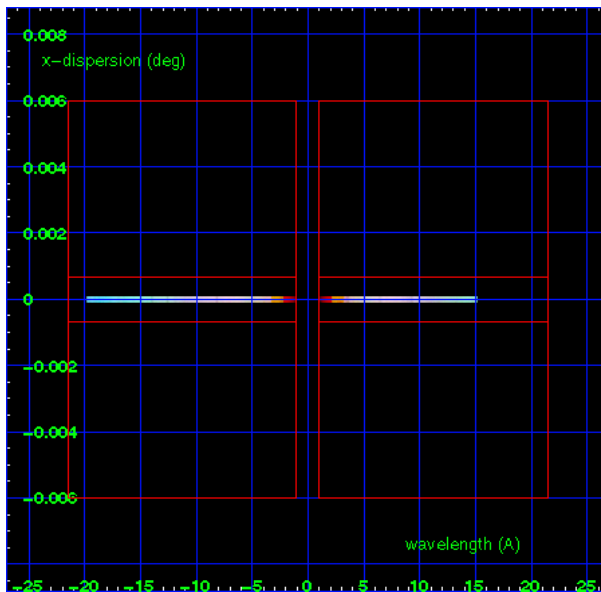
3.1 HEG Arm



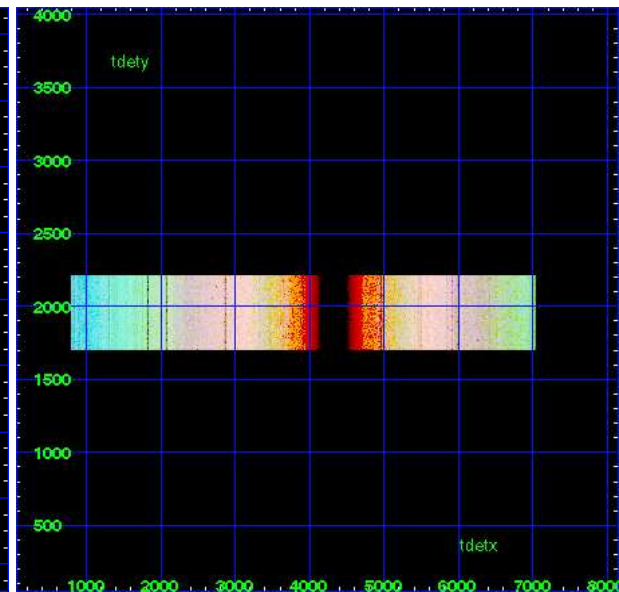
HEG Order Sort 123



HEG Order Sort ALL

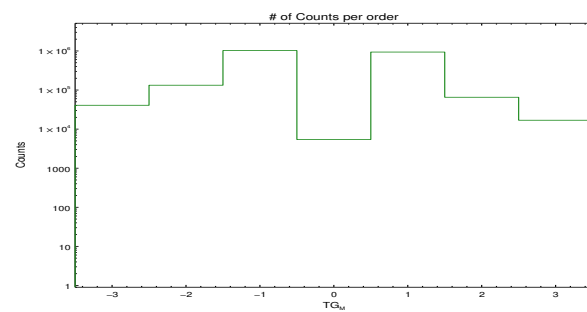


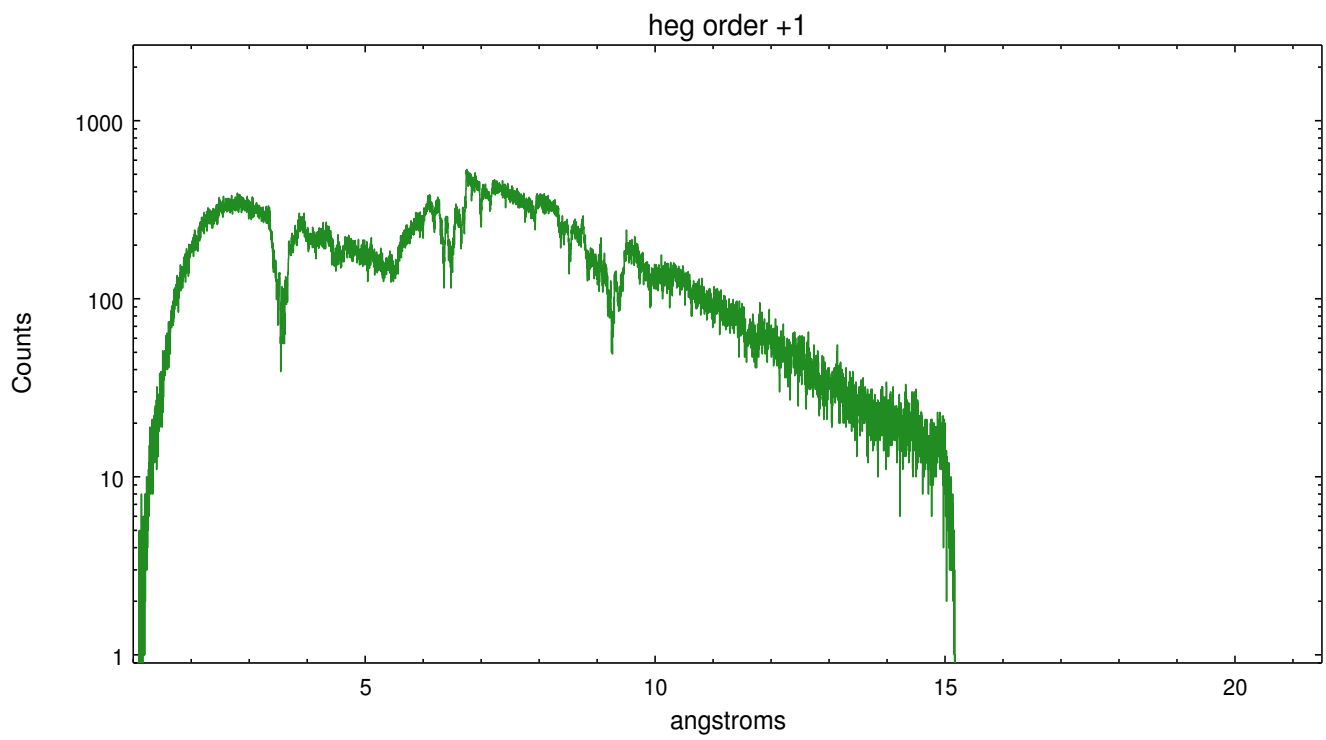
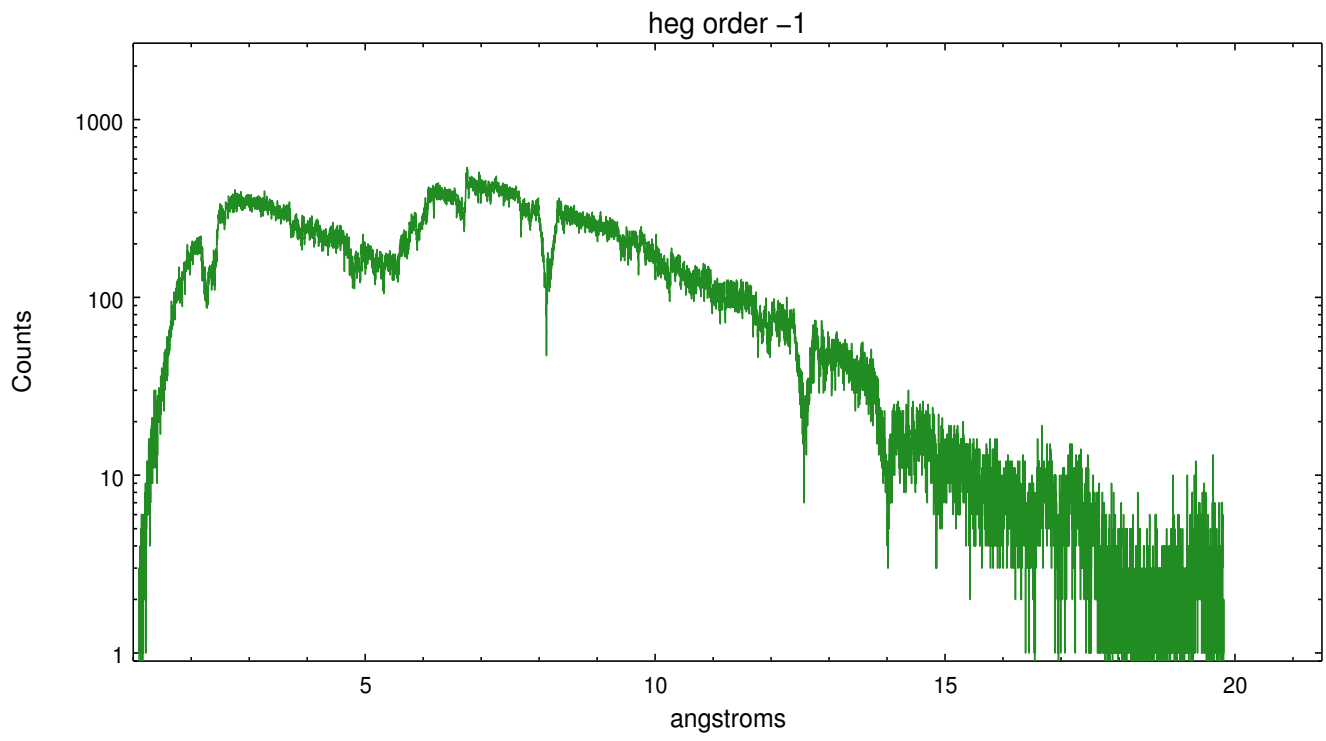
Spot Image HEG



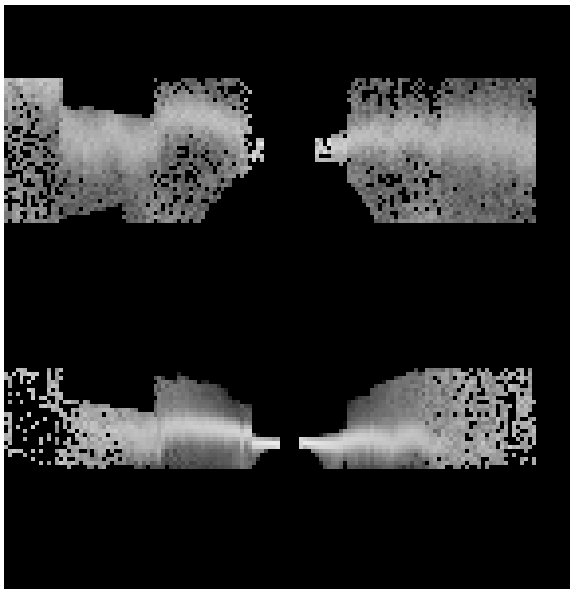
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	40717	132746	1023245	5420	936771	65292	16864

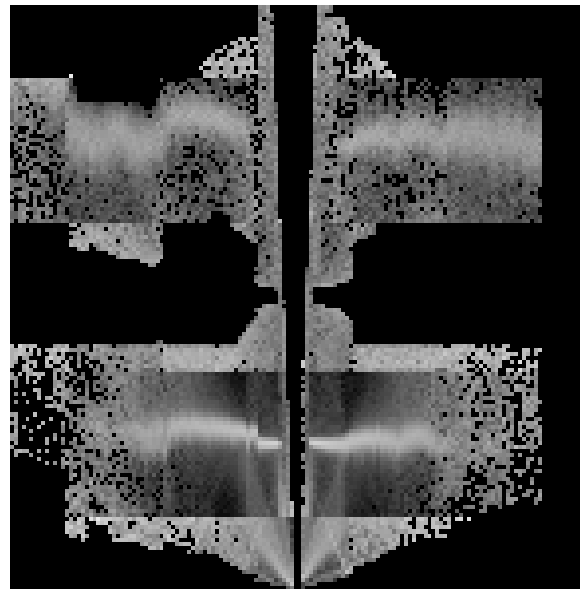




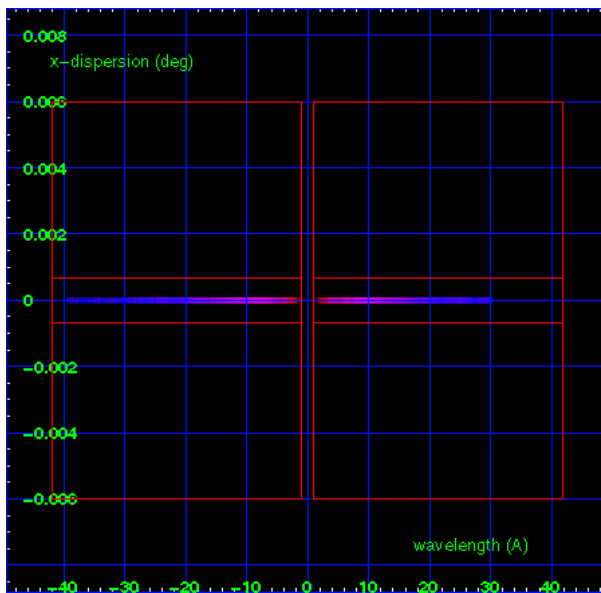
3.2 MEG Arm



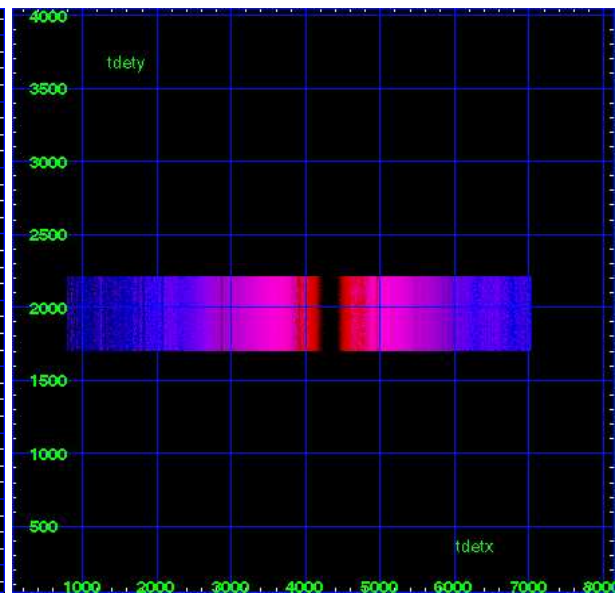
MEG Order Sort 123



MEG Order Sort ALL

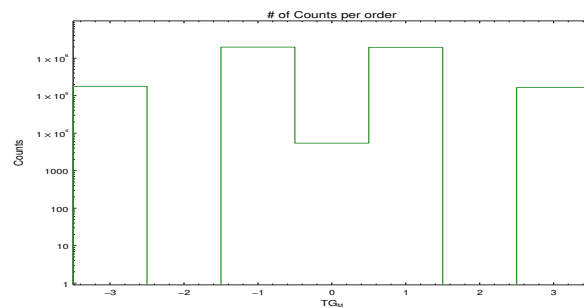


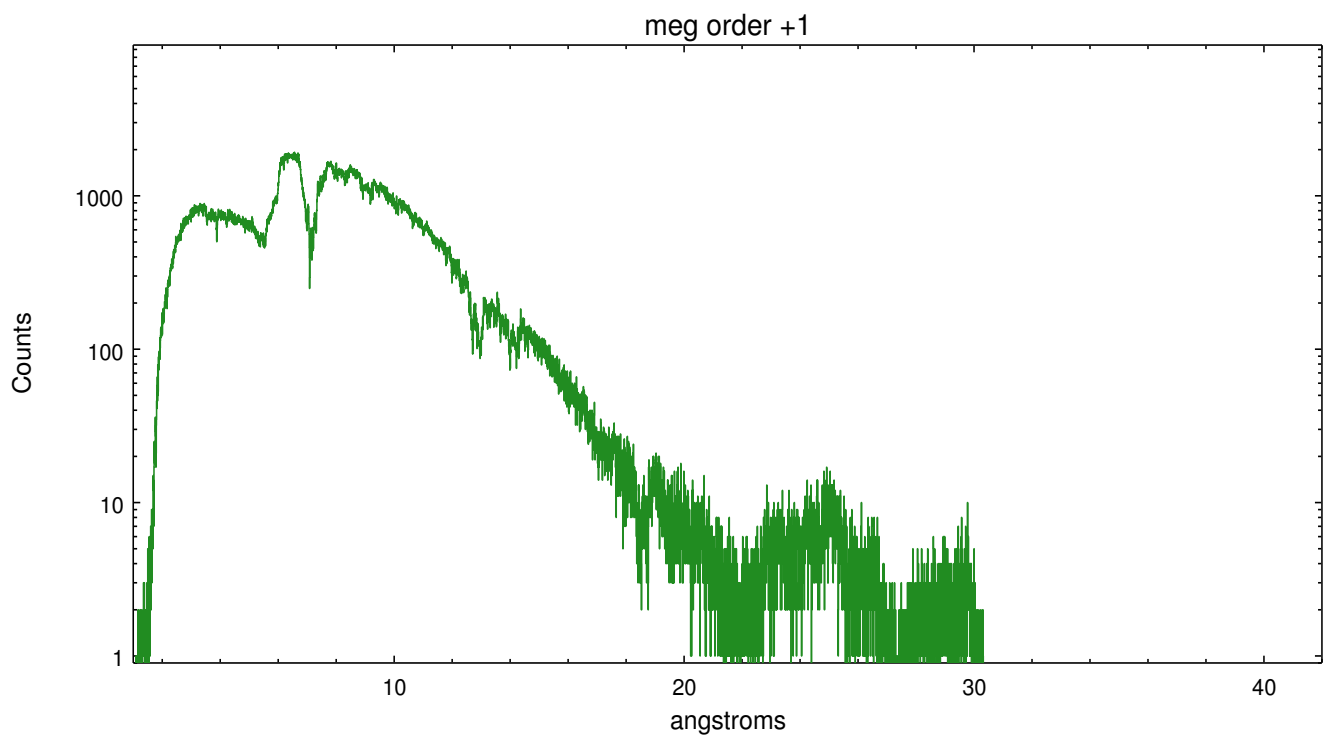
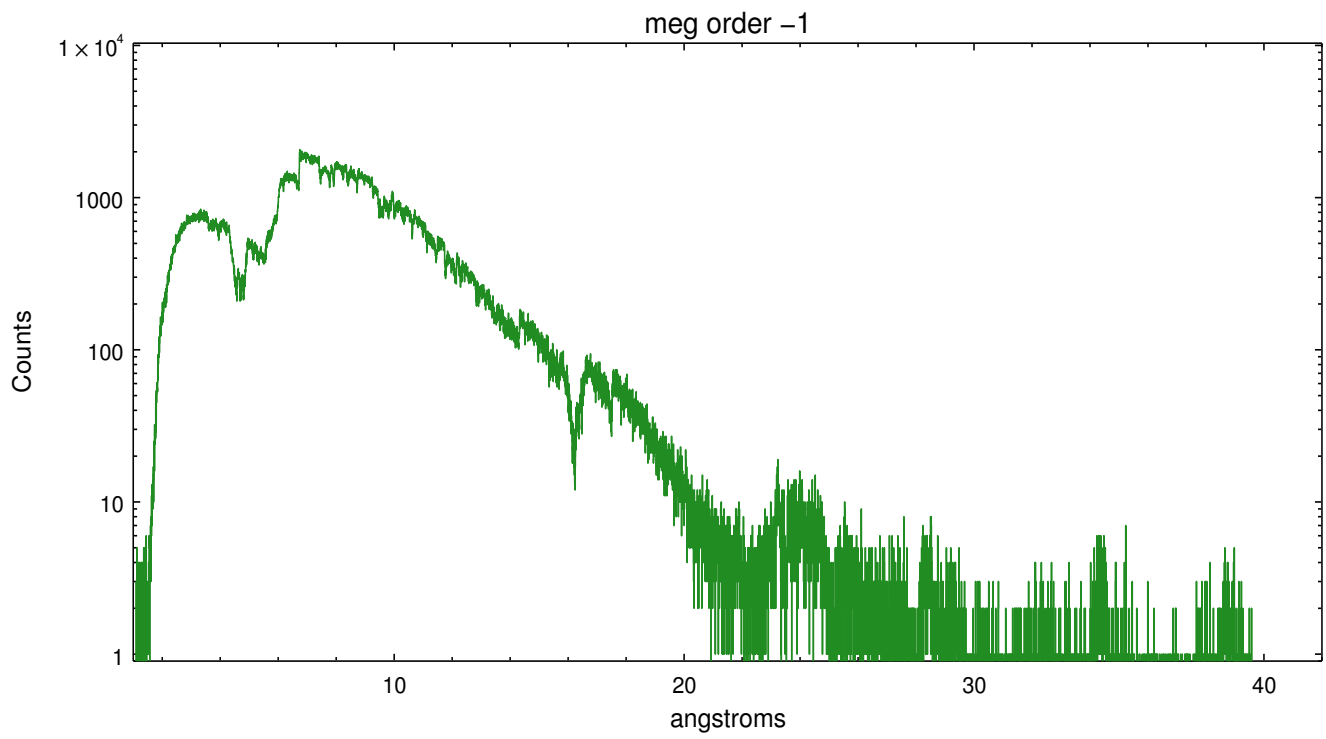
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	177338	0	1973472	5420	1945313	0	164159





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.10.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.146

A.2 Comments